

The Ballarat Naturalist

May 2019



Records, Notes and Information

Elsbeth Swan presented a comprehensive range of methods for the collection of information on natural resources, all available electronically on the internet.

The Atlas of Living Australia (ALA) is Australia's national biodiversity database and it is founded on the principle of data sharing – collect it once, share it and use it many times. By aggregating biodiversity information and making it more available online, the ALA is assisting scientists, planners, managers and others to create a more detailed picture of Australia's biodiversity.

BioCollect is a sophisticated, yet simple to use tool developed by the Atlas of Living Australia (ALA) in collaboration with over 100 organisations which are actively involved in field data capture. It allows nature information to be collected in the field and uploaded to the ALA directly.

Elsbeth encouraged members to explore for themselves some of the great online tools now available:

<https://www.inaturalist.org> <https://www.ala.org.au/biocollect>

<https://www.facebook.com/EchidnaCSI>

<https://questagame.com>

<https://www.frogid.net.au>

www.nccma.vic.gov.au

<https://ebird.org>

www.bowerbird.org.au

<https://volunteer.ala.org.au>

<https://www.feralscan.org.au>

<https://www.ala.org.au/>

The best place to add data is in the Victorian Biodiversity Atlas which is run by DELWP. You need to register and download the guide and you may submit individual records or create projects. Find it at <https://www.environment.vic.gov.au/biodiversity/victorian-biodiversity-atlas>

A simpler way to go for individual records is to use VBA Go. VBA Go is a mobile tool that links directly to the Victorian Biodiversity Atlas, making it easier than ever for environmental managers, researchers, students and all community members to share records of Victoria’s native species while out and about, via a smart phone. All your VBA Go data feeds into the VBA and is verified.

Roger Thomas mesmerised the audience with examples of the numerous observation records he maintains throughout the year. Roger’s method was not complicated as he showed how he diarised the comings and goings of bird species, as well as the flowering and seed set of plants. He has several different records depending on how much detail was required. Often, a month was divided into four so that each week had a record of mother nature’s activity.

The astonishing thing is Roger has been taking these simple records daily for a good many years. Such a rich and consistent dataset spanning so long is a valuable asset for land managers, scientists, nature-lovers and gardeners alike. Roger’s information can demonstrate how bird movements, breeding and nest building, and flowering are affected by drier periods or by wet seasons. Indeed, he uses the knowledge contained in his records as a resource for his media articles, predicting when broilgas will nest in the district, or reminding people to look out for the first orchids of spring or the first mushrooms of autumn.

All agreed that a permanent, electronic version of Roger’s data would be an invaluable legacy.

Anyone keen on some data entry?

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Copies:	
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	Local Plates
	Power Plates
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	Stiffly Lock
	Steel Plates
	Power Stakes
	Anti & Steel Set
	Quadrant
	Column Chained
	Shallow Lay 1st
	Shallow Lay 2nd
	Local Plates

(Fascsimile only)

Keeping Notes on Nature

By Emily Noble

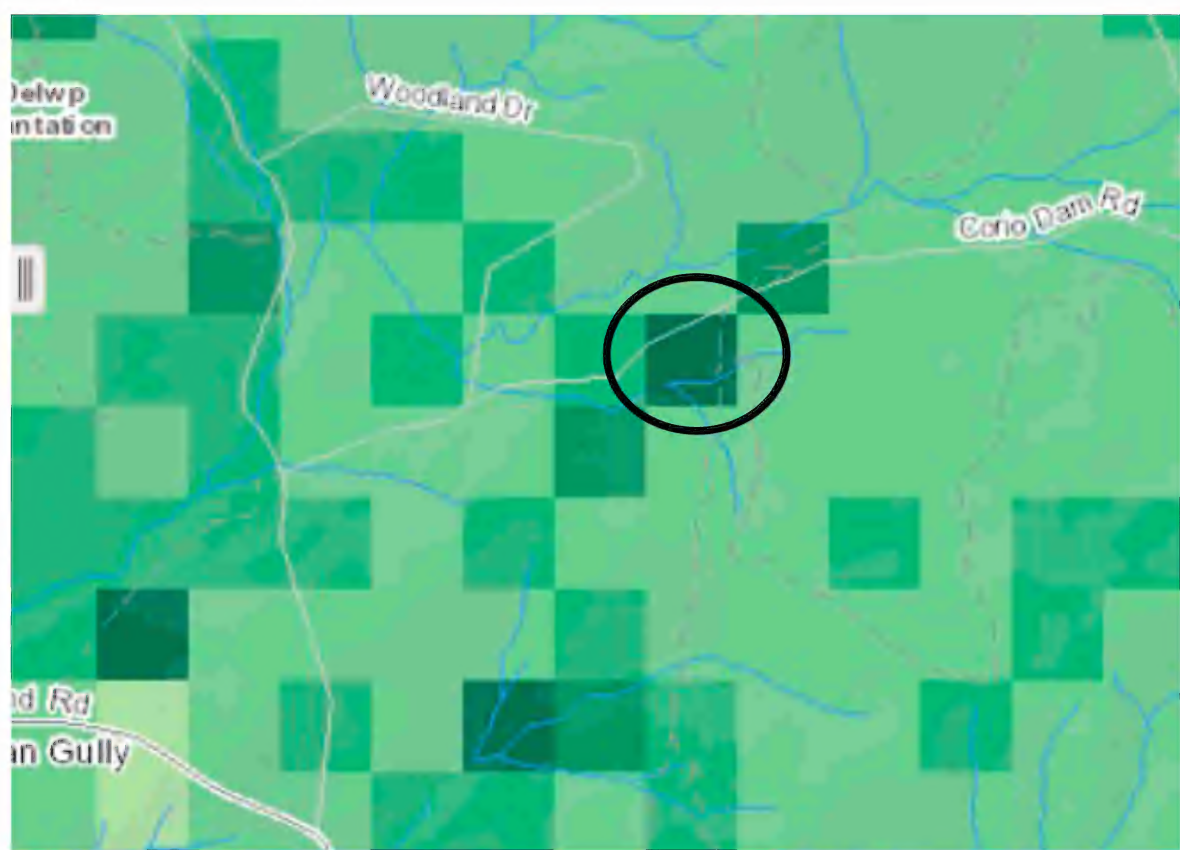
Like many field naturalists, I have a natural inclination towards keeping records relating to nature. There are many different ways to “keep notes on nature”, and apart from fuelling our own interests, they can be very valuable for a number of reasons. They can promote interest in nature. They provide the raw data for: land managers to base their decisions on and prioritise investment/ environmental advocates to base their cases on/ the establishment of long-term trends in the condition of natural areas. Records can show the occurrence of threats and nature’s responses to various environmental triggers or actions. They also contribute to a deeper understanding of natural species, their distribution, relationships, needs and lifecycles, where there are still so many knowledge-gaps.

Personally, I keep natural history records to improve my understanding of nature and enhance my management of natural environments. My records cover daily rainfall for my property and a photographic record of birds, plants, insects, fungi, mammals, lichen, etc. for my block, the state forest next door and the other public reserves I visit. Thanks to the wonders of digital photography and computers, my photos automatically record the date and GPS location details of my photos. I have thousands of images and some long species lists. About six years ago, I discovered how important those records could be.

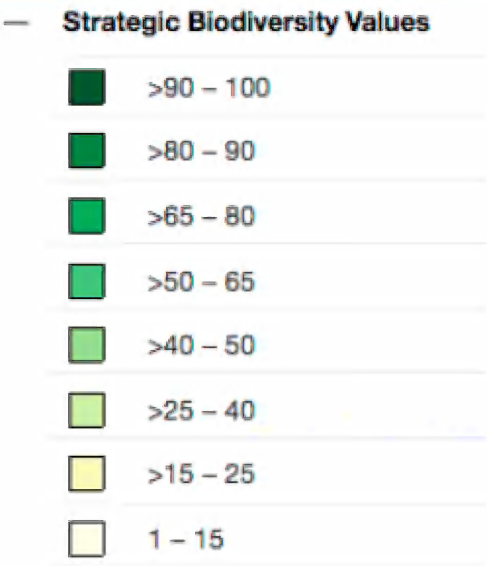
I learned that DELWP had scheduled a planned burn in the State Forest next door for the coming spring. I knew that over 40 species of orchids that I had recorded in the area would be flowering at that time, and the near-threatened Spotted Quail-thrush would be at its most vulnerable, nesting on the ground in *Poa* tussocks. When I took my concerns about the likely consequences for these species in the event of a spring burn to DELWP, I was told that there was no record of most of those species in the area. I naively thought that providing my records would be adequate, but was advised that unless the records were in the State’s Victorian Biodiversity Atlas (VBA), they would not be considered credible.

I soon learnt how complicated it was to get records into the VBA and was very grateful for the help of another FNCB member to submit the records to the VBA. As a result of those records becoming official through a rigorous verification program by a panel of experts that assess all records submitted, the planned burn was rescheduled to autumn, a time of year that seems much more suitable given the lifecycles of key species in that particular forest.

The data submitted is now clearly visualised on DELWP’s NatureKit website that displays Strategic Biodiversity Values across Victoria based largely on the information in the VBA. The map shown clearly illustrates the impact of submitting records, with our plot (circled) being displayed as 80-90% of the maximum possible Strategic Biodiversity Values and the plot adjacent to it, just as rich in species but without a submission of records recently showing just 40-50% Strategic Biodiversity Values.



2018 Map of Strategic Biodiversity Values, Enfield State Forest adj to Lilwarre



Source: <https://www.environment.vic.gov.au/biodiversity/biodiversity-interactive-map>

Excerpts from FNCB Club Meeting Minutes held April 5, 2019

Opening and Apologies

Attendance: President John Gregurke welcomed 33 members and 7 visitors.

Apologies: Chris and Anna Baulch, Bill Murphy, Elizabeth Thurgood, Ken Hammond, Mark Moravec, Sophie Akers, David and Sullivan Horwood, John Petheram and Wayne Walker.

Moved: S. Faull Seconded: J. Mildren Carried.

Minutes of Club Meeting- March 1, 2019: Accepted as a true & accurate record. *Moved: B. Elder Seconded: C. Hall Carried.*

Business Arising from Previous Club Meeting on March 1, 2019

The Club's SEANA membership was renewed.

John Gregurke did not proceed with his nomination to the SEANA Committee with nominations from two other clubs filling the spots on the Committee: Geoff Harris from Castlemaine FNC and Glenise Moors from Bendigo FNC.

Emily and John G. prepared a Club submission on the Lake Bur-rumbeet Futures Project, submitted March 31, 2019.

FNCB members were invited to a “Visions Workshop” along with Ballarat Environment Network members, organised by BEN and facilitated by DELWP staff on Thurs. March 21, as a first step towards DELWP’s process to modernise Regional Forest Agreements. FNCB’s new Treasurer, Kathy Elder, is now an authorised signatory of FNCB with online/ mobile access to the Club accounts.

Reports:

Treasurer's Report:

Opening bal: \$7,998.62

Income \$1,797.10

Expenses \$1,122.50

Closing bal: \$8,673.22

Moved: K. Elder Seconded: C. Dalman

Carried.

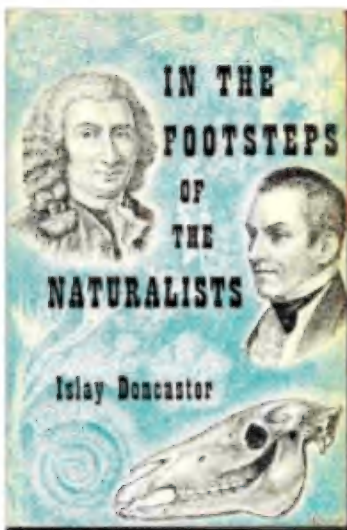
Vision for the Forests workshop, March 21: Several FNCB members attended this workshop along with members of the Ballarat Environment Network. Both groups were quite unified in their visions.

Continued page 10

Book Review

In the Footsteps of the Naturalists by Islay Doncaster

This delightful little book is written by a British historian and former teacher at the Natural History Museum in London. Mrs. Doncaster has many published titles, most on natural history subjects. In this text, she has selected a handful of famous and not-so well-known naturalists – those “who study living nature at first hand”. The author suggests that the best way for naturalists (young and old) to “follow in the footsteps” of the original naturalists is by observing and recording the behaviour of plants and animals in their natural surroundings and by studying the relationships between plants and animals and the earth on which they live. This was the theme of our speakers in April.



Gilbert White



Philip Gosse

The book has a chapter on each of eight naturalists – Carl Linnaeus (botany), Gilbert White (ecology), William Smith (geology), J.J. Audubon (ornithology/artist), Charles Waterton (wildlife sanctuary), Philip Gosse (sea shore), Henri Fabre (entomology) and Charles Darwin (evolution). Chapters tell the story of each man’s life and something of the significance of their particular contribution to science.

The most exciting aspect of most life stories presented here is that many of these people were amateurs who spent time enjoying the natural world close to home and with very little formal training or equipment. Often, they would improvise as part of their study and pioneer their field of interest. Almost all of them kept comprehensive records over long periods of time – the discipline of a scientist.

The naturalist subjects were active mostly in the mid to late 18th century with the last three (Gosse, Fabre and Darwin) being born after 1800. The most useful section of each chapter is a summary of practical measures aspiring naturalists can take to study the aspect covered by the chapter. For instance, the chapter on Gilbert White ends with “How you can study plants and animals living together” and suggests keeping a journal, making lists of birds each season, collecting all manner of specimens, or studying and comparing a site that has been disturbed or altered by fire or the like. Studying different habitats or environments is also recommended – the garden, a wooded area or a pond will yield a range of species to understand and interact.

The book was first published in 1961, and went through several editions. It is written in a non-academic style and is great for younger readers. It has quite a few black and white plates and other illustrations from the journals of the scientists themselves. Each chapter ends with a book list, split into references about the naturalist and references about the subject matter of the chapter. The final section, entitled “What is a naturalist” not only has a summary of the book and of the men represented, but also a list, (now very much out-dated I suspect), of magazines and societies for naturalists. There is also a useful Index.



Jean Henri Fabre

For information on the lives of some very influential and interesting naturalists, I thoroughly recommend “In the Footsteps of the Naturalists”. It is available at second-hand book websites both here and overseas and is quite inexpensive. You may also stumble upon this treasure in a second-hand book store or op shop, like I did.

Bill Elder

Excursion to Mitchell Park Wetland, Mt Hollowback Mullawallah Wetland, Woowookarung Regional Park 7 April 2019

The afternoon excursion began at Mitchell Park Wetland which was established along Burrumbeet Creek about 15 years ago. The trees and shrubs have become well established. Chestnut Teal were present as usual along with Grey Teal and Black Duck. A photo of a female Flame Robin was taken. The ponds were covered with a floating mat of water fern and some duck weed.



We drove to the summit of Mt Hollowback, elevation 581m. From this viewpoint we had good views over Ballarat and the surrounding country. Some peaks that could be identified included Mt Emu, Mt Calendar, Mt Beckworth, Smeaton Hill, Springmount, Mt Warrenheip and Mt Buninyong. The strong wind provided challenging conditions for two enthusiasts to fly their radio-controlled model gliders.

Flame Robin (F) - *Petroica phoenicea*

At Mullawallah Wetland the water level was dropping and large areas were covered with aquatic vegetation. Black Swan, Black Duck, Grey Teal, Musk Duck and Shoveller were swimming in open water. White Ibis and White-faced Heron were also seen.

After picnic tea at Lake Esmond we travelled to Woowookarung Regional Park as the sun was setting. We were joined by Marian Weaving who lead us on spotlight walks at two sites, stopping occasionally to play calls of Tawny Frogmouth, Southern Boobook and Owlet Nightjar. We heard response from Owlet Nightjar but unfortunately no nocturnal birds or mammals were seen. (John G)



Mt. Hollowback

Part two of the day's exploring was a spotlighting walk around part of Woorookarung RP., Canadian. A group of around 11 enjoyed a picnic tea at Lake Esmond before being joined by another 8-10 field nats at the park just as the sun was dipping below the horizon. Ravens and Yellow-tailed Black cockatoos were much in evidence, but our goal was to find night birds, especially owls.

The group was led by Dr. Marian Weaving who has done plenty of research into owls and frogmouths and we were confident in her ability to flush out a few birds. Unfortunately, the birds had other ideas and we did not see one target bird in the hour or so spent spotting. Marian used a smart phone loaded with calls of Tawny Frogmouth, Southern Boobook, Australian Owlet-nightjar and Powerful Owl. The idea was to stop quietly every now and then, play the calls one by one, listen out for responding calls and spot around to see if any birds had been attracted. We did have a Boobook respond, but it was a long way off. An Owlet-nightjar also responded close to the group, but only once and we did not catch sight of it.

All in all, it was a pleasant walk on a mild night in the bush which looks and feels so different at night. Marian suggested it is worthwhile trying again as the weather gets cooler.

Thanks to Marian and John G. for organising such a different experience. (Bill E.)



Australian Owlet-nightjar - *Aegotheles-cristatus*

From page 5...

SEANA General Meeting: This was an experimental event replacing the usual Autumn camp due to a lack of Club's volunteering to host a camp. The feedback was positive on the flexible format of the event. Hamilton FNC organised an excellent excursion to Griffiths Island, a sandy island on a basalt foundation formed by a volcanic eruption. The birds, dune plants, rock pools, geology, historic relics, tubeworms, barnacles on the exposed shore and several species of cuttlefish were all of interest. Some members visited Yambuck Lakes and The Craggs, and Jodie Honan spoke about local efforts to save wetlands from urban development and all that had been learnt about the behaviour, requirements and conservation of Latham's Snipe.

Andy Arnold has provided a detailed report of part of the SEANA meeting—see p.12.

The Spring SEANA Camp to be hosted by Castlemaine FNC was promoted too. It will be held from Friday 4th October to Monday 7th October, 2019, with attendees to organise their own accommodation, breakfasts and lunches, and excellent speakers on the Friday and Saturday night (Geoff Park of "Natural Newstead" fame, and Tim Entwisle, Director of the Royal Botanic Gardens Melbourne).

Club Camp at Apollo Bay: Seventeen FNCB members attended, enjoying visits to Maits Rest, Melba Gully, Triplet Falls, Marengo, West Barwon Reservoir. Things of note: fern gullies, the death of a young seal and sightings of a Pink Robin and Satin Bowerbird. Many thanks to Fran H. for organising the camp.

General Business

Please welcome new members Ruth Hoskin, Geoff Howard and Andrew Clarke.

FNCB Activities Calendar for 2019-20 is available for collection tonight and has been uploaded to the Club website under the heading "About us". Thanks to Bill for putting it together, and to all committee members for contacting various speakers and field trip leaders to fill the program for the year.



Crested Shrike-tit - *Falcunculus-frontatus*

Show & Tell/ Field Reports

Emily reported that she and Pete believed they heard their first visit from a Southern Barking Owl, “barking” from the large tree in the middle of their wetland at 10pm on April 2.

New Holland Honeyeaters were also added to their property’s bird list in March and visits to their bird-bath by Crested Shrike-tits and a Collared Sparrowhawk were other highlights.

At Lake Lorne near Drysdale, John Mildren found 12 Royal Spoonbills, some on the ground and some up a tree. John also spotted 10 Little Black Cormorants feeding together at Lake Wendouree, following a small fish shoal.

Andy found an ornately-patterned Stub Moth *Discophlebia* sp. on his gate post in Alfredton. In his garden, a visiting Eastern Spinebill was quickly chased off by a New Holland Honeyeater, a Preying Mantis sat in wait in a Belladonna Lily flower, catching a Common Brown Butterfly that landed on the flower with the tarsal spines on its forelegs and devouring it head first (see below), and Andy also saw a female Painted Lady Butterfly.



Visitor Wendy told us about two Eastern Copperheads she found under a pot plant near her back door at

Burrumbeet, and reported a Kookaburra at her property. Her husband Steve noted the presence of lots of waders around the caravan park at Lake Burrumbeet in March.

Val reported about a dozen Pied Currawongs noisily feeding on the ripe grapes of her neighbour on their shared fence at about 8am over several days in early April in Ballarat East.

Elsbeth recorded two eagles at Lal Lal Reservoir on April 2, 2019.

**SEANA Autumn meeting
Visit to Port Fairy Saturday 23 March 2019**

**A guided tour covering aspects of the Geology,
Natural History and History of Griffiths Island, Port Fairy.
Excursion notes and follow up research by Andy Arnold.**

Some of our club members attended the SEANA meeting at Port Fairy before continuing to the FNCB autumn camp at Apollo Bay. On Saturday morning the Hamilton Field Naturalists Club provided a very interesting tour of the coastline including features of the Port infrastructure with a guided walk around Griffiths Island.

We gathered near the causeway to the island at 9.30 am for a 10.00 am departure. While waiting we had the opportunity to look at an excellent small display in the rotunda at the start of the causeway which interpreted features of the island especially its geology. Diane Luhrs provided us an overview of our walk and the essential safety aspects we needed to observe.

The town of Port Fairy and Griffiths Island sit on flows of basalt which overlies Miocene Marine Limestone. The physiography of Griffiths Island has changed significantly since John Barrow, an Assistant Surveyor from the Surveyor General's Office in Melbourne surveyed the Port Fairy coastline in 1853. The display in the rotunda shows coastal outline features from his map overlain over a recent aerial photo. Originally there were three islands Goat Island, Griffiths Island and Rabbit Island. They have now all been amalgamated into what is today called 'Griffiths Island' principally due to various phases of harbour works and natural sand accretion over time.



Basalt shoreline of Griffiths Island showing Holocene sand deposits and marram grass covered dunes.

Edmund Gill, the late Deputy Director of National Museum of Victoria said, *a whole book could be written on the geology of Port Fairy and its environs*. The basalt is known as Woodbine Basalt and this has been dated as 300,000 years old by radioactive methods. The basalt flows followed *the fossil valley which belongs to the ancestor of the Moyne River* and infilled it. The valley of the ancient Moyne did not get filled by a single lava flow. Bores reveal that in places the basalt is 44m deep and *has spread out to form a band 8km wide*. The basalt is believed to have come from Mt Rouse near Penshurst about the time of the *Glacial Stage before last (Penultimate Glacial)*. *The seashore was then about 50 km south of the present-day coast line*.



Spider's web on upper shore Griffiths Island also showing vesiculated basalt full of gas bubbles.

According to Gill, the *Woodbine basalt had a high gas/lava ratio, causing it to be full of bubbles. Sometimes this gas accumulated and caused up-doming of the surface of the lava flow while it was still soft in places these domes collapsed leaving rounded bays with the basalt dipping inwards all round*. The narrow passage known as the South West Passage that separates Griffiths Island from the mainland was thought by Gill *to be due to lava tunnels collapsing*. The complex coast that has since formed here is a fascinating place to explore the geology, physiography and the rocky shore marine ecosystem resulting from this exposed basalt substrate *that is so hard, so heavy, and so tough that it has is only slowly eroded*.

We commenced our walk just before low tide, crossing the causeway to the island from just south of Martins Point. Here we observed swifts and a sooty oyster catcher and seagrass (*Zostera*) growing in the channel.

As we walked onto the island there were singing honeyeaters in fringing shrubs and a Brown Falcon hovering above us. We walked towards the southern coast of the island where we could see limestone which has been identified as Port Fairy Calcarene. Gill writes that this was formed after the sea retreated and the shore shell/lime sand was wind deposited into dunes about 125,000 years ago. As the dunes aged and weathered they hardened to form calcarenite, a soft brittle limestone. The remnants of this limestone deposit can be seen filling joints in the basalt on the southern shore platforms. After this *the sea then retreated to its latest low level between 18,000 and 20,000 years ago and about 6000 years ago the sea once more reached approximately its present level, with only small oscillations since then.*

The return of the sea formed a new coastline along the southern shore of Griffiths Island and sand accretion formed a beach exposed to wind action from the south west resulting in newer coastal dunes being deposited over the basalt platform.

Griffiths Island lies within the Warrnambool Plain Bioregion. The pre-1750 EVCs would likely have included specific examples of coastal shrubland and grassland and woodland. Early historical reports described dune areas covered in She oaks around Battery Hill. This woodland may also have been found on parts of the island but the first European occupation here was the establishment of a whaling station. (Griffiths was a whaler and trader who came here from Launceston). She oak makes excellent firewood so it is unlikely any large trees would have survived for long because they were probably used for heating try-pots in the tryworks that Griffiths established and in camp fires. The island has a large breeding colony of migratory short-tailed shearwaters (Mutton Birds) and are present from late September to April each year. The birds and the guano they produce influences the communities of vegetation found here. Due to the presence of the Mutton Bird colony, all visitors need to follow the established tracks to avoid damage to the burrows. (Griffiths Island is currently managed by the Moyne Shire and has been recognised as a Site of Special Scientific Interest (Zoological) in the Victorian Coastal Region).

References:

Gill, ED & Gill KW "The Geology of Port Fairy" *The Victorian Naturalist* Vol 90 (September 1973) pp251-255

Port Phillip field naturalist Graham Patterson provided us with an interesting diversion explaining how to identify different species of Cuttlefish from stranded specimens using the gladius (a hard internal bodypart found in many cephalopods, regarded as a vestige of the mollusc shell). The gladius is located dorsally within the mantle and is composed of chitin. Gladii are distinctly shaped and useful for identification of species. The key and descriptive guide he was using has been prepared by a Port Fairy resident. From this beach the gladii of two species of Cuttlefish were found and identified. *Sepia apama* (Giant Cuttlefish) and the smaller *Sepia novaehollandiae* were able to be separated using the key.

Heading east along the basalt rocky shore, Diane led us to the rock-pool area located in the mid tidal range. On the surface of the basalt were extensive areas covered in the brown alga *Hormosira* sp.

(Neptune's necklace). Located in the pools we saw several species of Coralline red algae some quite bleached by the sun. In the lower tidal zone we found another brown seaweed *Phyllospora comosa* with its characteristic air bladders growing on the ends of short stalks. We observed a good range of shore molluscs including *Austrolittorina unifasciata* (Blue periwinkle) in the splash zone above the high tide mark. *Austrocochlea constricta* was grazing the algal mats and another seaweed eater, *Turbo undulatus* (Wavy Turbo) was present in small numbers. There were also numerous limpets and Siphonaria (False limpets) and barnacles. *Galeolaria caespitosa*, a lime shelled tube worm (Family Serpulidae) has formed large white encrustations as a band on the black basalt rocks in the lower tidal zone between mid-tide level and about 45 cm above zero tide mark. The pools also contained several species of predatory and scavenger molluscs, *Dicathais orbita* (Dog winkle or cart-rut shell) with its deeply grooved shell and

Cominella lineolata with its distinctive speckled black and white shell pattern. Crabs swimming in the pools were *Plagusia chabrus* (Red bait crab) and a surf crab (species not identified).



Basalt on southern shore of Griffiths Island showing the *Galeolaria* Zone

CALENDAR 2019

May

Fri 3 Ballarat's golden mining history and present explorations
Bill Reid, Castlemaine Goldfields

Sat 4 Geology of Slatey Creek area, Creswick
David Horwood, FNCB

June

Fri 7 Wildlife of the Otways & Shipwreck Coast
Grant Palmer, Federation University

Sun 9 Fungal Foray at Grams Rd. Reserve, Smythesdale
Sapphire McMullan-Fisher, Fun Fungi Ecology

Committee

President	John Gregurke
Vice Pres	Fran Hanrahan
Secretary	Emily Noble
Treasurer	Kathy Elder
	Andy Arnold
	Bill Elder
	Les Hanrahan
	Val Hocking
	John Petheram
	Margaret Rich
	Elsbeth Swan

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Meetings are held at Federation University Gillies St Campus on the first Friday of the month at 7.30pm.

Excursions: Leave from the carpark of Federation University Gillies St Campus at 9.30 am, unless otherwise advised.

A monthly publication of the Field Naturalists' Club of Ballarat Inc.
Incorporation # A0014919P ABN 13 150 403 135